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(12) United States Patent

Nakazawa et al.

(54) COMBINED OIL CONTROL RING

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(57) ABSTRACT

To provide a combined oil control ring with a function of preventing the separate rotation of side rails for a long period of time even under fretting fatigue, seating tabs of a spacer expander are provided with substantially longitudinal projections and recesses on their side-rail-pushing surfaces in a circumferential direction, the width m of a bottom surface being larger than the circumferential length m' of the top surface in each projection, and a surface connecting the top surface to a recess surface having a bulging shape.

10 Claims, 5 Drawing Sheets

